

Yellowstone

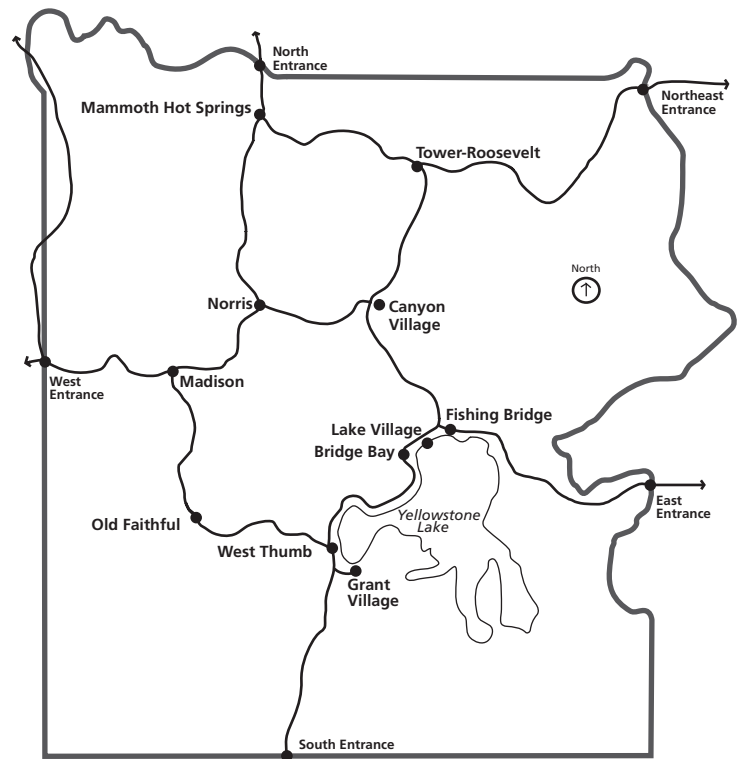
Lake Trout Crisis

Yellowstone National Park
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The Problem

Lake (Mackinaw) trout (*Salvelinus namaycush*) were discovered in Yellowstone Lake in 1994. They pose a grave threat to the future of the lake's native Yellowstone cutthroat trout (*Oncorhynchus clarki bouvieri*) and to many fish-eating animals such as pelicans, eagles, ospreys, otters, and bears. Lake trout were stocked in some park waters into the mid-20th century, but never into Yellowstone Lake. No one knows how lake trout were introduced into Yellowstone Lake, but probably it occurred several decades ago.



How Can Lake Trout Pose Such A Threat?

Yellowstone Lake contains the largest inland cutthroat trout population in the world and has provided an almost museum-pure home for them for thousands of years. However, the native cutthroat trout are now severely threatened by lake trout. The problems are caused by the differences between the two kinds of fish:

- Lake trout are voracious predators and will eat the smaller Yellowstone cutthroat trout.
- Adult cutthroat trout live in relatively shallow water where they feed on a variety of insects and plankton.
- Adult cutthroat trout also spawn in dozens of small streams around Yellowstone Lake.

- Because of their use of shallow waters, cutthroat trout are available to fish-eating predators such as bald eagles, osprey, pelicans, cormorants, gulls, otters, and grizzly bears.
- Lake trout spend significant time in deep water, and they spawn in the waters of the lake itself.
- Because of their use of deep waters, lake trout are well out of reach of most predators.

If lake trout become the dominant fish in Yellowstone Lake, the ripple effects throughout the ecosystem could be disastrous, with far-reaching consequences for predators, anglers, and science.

What The Park Is Doing

There is no way to eliminate lake trout from Yellowstone Lake. However, ongoing management of the problem may be able to control the growth of the lake trout population, maintain the cutthroat trout population, and, thus, sustain the wildlife populations that depend on the cutthroat trout for food.

The National Park Service has instituted an intensive gill-netting program that targets lake trout. Gill-netting begins in late May or early June after ice is gone from the lake, and continues into October. Three different netting strategies are employed:

- Control netting uses small-mesh (less than two-inch) gill nets strategically placed to capture small lake trout while minimizing cutthroat trout bycatch.

- Distribution netting, which uses large- and small-mesh nets, monitors the distribution of both adult and immature lake trout. Distribution netting has shown that most adult lake trout are in the West Thumb Basin and Breeze Channel areas.
- Spawning net strategy targets spawning grounds during the fall spawn.

Since lake trout control operations began in the mid-1990s, almost 200,000 lake trout have been caught. Gill netting also provides valuable data—population size, age structure, maturity, and potential new spawning areas—that lead to more effective control of this species. For example, during 1996, a lake trout spawning area was discovered in the West Thumb region of Yellowstone Lake at Carrington Island.

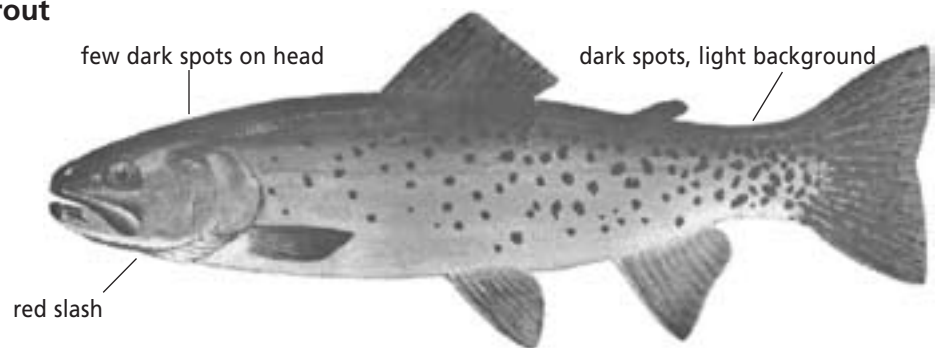
Your Help Is Vital

Anglers are an important component in the lake trout management program. They have had the most success in catching lake trout that are between 15 and 24 inches long. These fish are found in shallow, near-shore waters in June and early July. To date, anglers have taken approximately 4–5 percent of the lake trout removed from Yellowstone Lake.

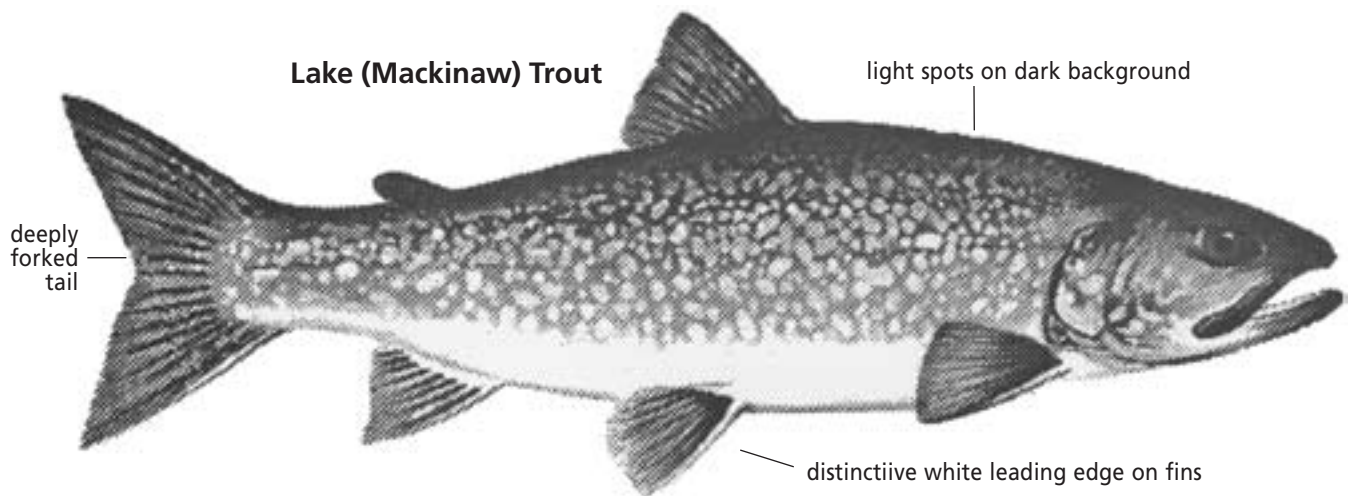
Fishing regulations require anglers to kill all lake trout caught in Yellowstone Lake and its tributaries. In 2001, regulations were further refined to restrict all cutthroat trout fishing to catch-and-release only.

How To Identify What You Catch

Cutthroat Trout



Lake (Mackinaw) Trout



For More Information

www.nps.gov/yell/planvisit/fishing.htm

You'll find several documents on this website about aquatic invasive species, lake trout, and also Yellowstone National Park's fishing regulations.